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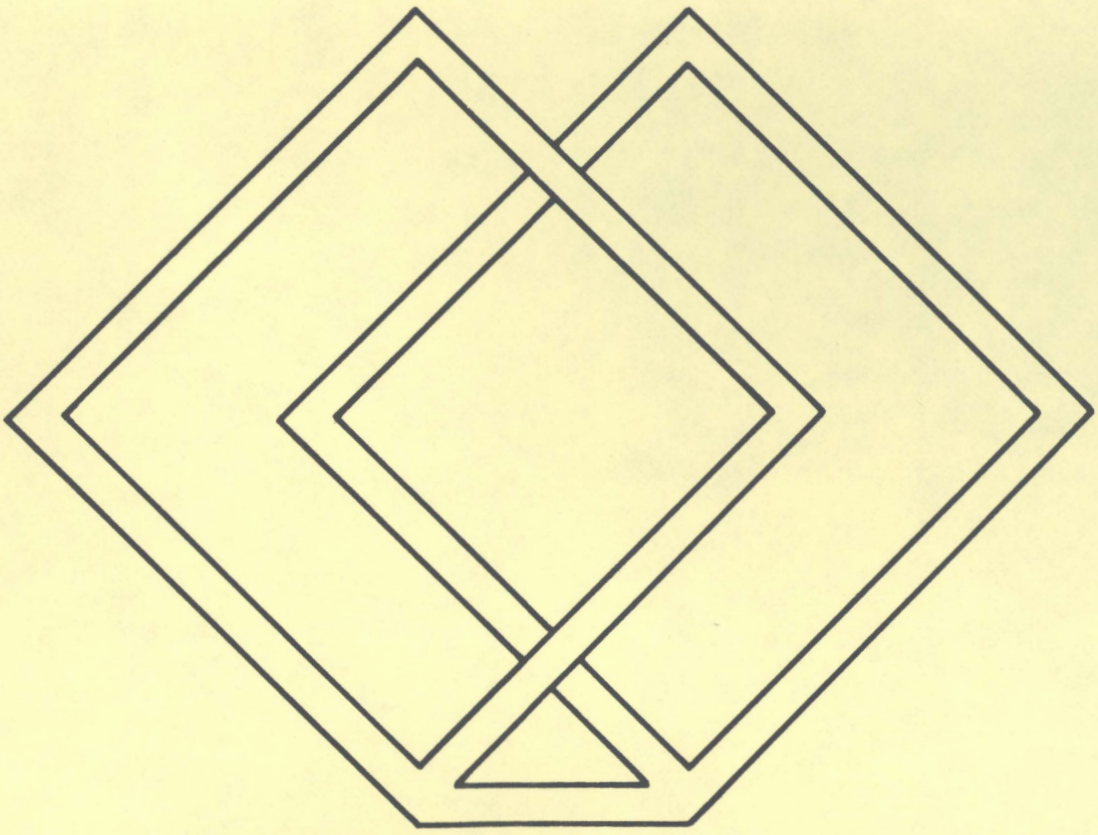

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Editorial

by Frank Gillespie

UFOCONS: ARE THEY WORTH ATTENDING

When the first Australian UFO Conference was organised by the Australian Coordination Section of CUFOS, the Australian ufological scene was characterised by a number of fiercely independent UFO organisations, and some equally independent individuals; all prepared to resist, at all costs, any attempt to take them over, or to deprive them of their independence. Under these circumstances, it was surprising that so many delegates were prepared to come to the conference, especially when it was arranged by the organisation which, to many, appeared to be trying to take over. The change wrought by three days of personal contact was truly amazing, and the delegates returned home convinced that ACOS should be supported, and that Australia-wide cooperation between ufologists was not just desirable, but essential.

Subsequent conferences have not produced the same dramatic sort of results - how could they? Nevertheless, I have never heard a delegate say that it was a waste of time coming. So, what makes it worth all the time, effort and expense, just to spend three hectic days listening, speaking, and discussing aspects of ufology? As one who has attended every UFOCON, I believe it is the personal contact - the rubbing of shoulders with people of like (or sometimes unlike) interests - the cementing of friendships where the relationship would otherwise have been, at best, a distant awareness of each other. In this respect, UFO conferences are no different to the science and engineering conferences I have attended.

Are UFOCONs worth attending? Just ask someone who was a delegate at the last one!

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SOME MYSTERIES AT SATURN: NATURAL OR OTHER?

by John Prytz

I have long held a private belief that the knowledge gained from the exploration of our solar system, both manned and unmanned, would probably make or break the viability of the UFO extraterrestrial hypothesis by the end of the century. Much new data originating as a direct result of space exploration (in the broadest sense of the phrase) has flowed in over the past quarter century. Some data can be taken in support of various aspects of the ETH. Some data cannot. A lot of data just assist in the production of higher piles of mysteries which have been heaped upon already existing piles of anomalies in the astronomical chapter of the book of knowledge. The potential contribution (if any) to the UFO enigma remains to date unknown.

In an earlier paper[6] I illustrated some examples of the latter which were uncovered as a direct result of unmanned planetary exploration. These examples were close to home (in an astronomical sense): from the Moon and Mars. In this article I continue the theme, but follow the outward wave our planetary exploration has taken. This time I focus on a couple of mysteries revealed from around the environs of the ringed planet Saturn - courtesy of Pioneer 11 and the Voyager 1 and 2 probes. But first an aside.

It could hardly be considered news that not only science fiction writers but also scientists have entertained speculation that extra-solar extraterrestrials and/or their artifacts might be found in our own solar system[1-8]. Nor should it be surprising to note that Saturn, though in a sense known to the ancients, wasn't really known at all - hence a ripe subject for literary and scientific speculation (at least prior to on-site terrestrial visitations).

One man, Arthur C. Clarke, both a science fiction writer and a bona-fide scientist, combined the two facets brilliantly in the novelization of the film 2001: A Space Odyssey[2]. (Yes I know Jupiter was the planet in the movie and in the sequel 2010: Odyssey Two, but it was Saturn in the original novel.) The interesting question, now some 15 years after 2001: A Space Odyssey was written, is, is truth stranger than fiction? Might, by the throw of a fickle literary dice, Clarke have been an unknown (and probably unwilling) prophet? Alas, I cannot answer that - but readers can judge for themselves.

Now clearly our probes to Saturn have uncovered many many puzzling features unique to the Saturnian system[9-20] which could not by the wildest stretches of the imagination have anything to do with ETI. It would be scientific folly of the highest order to equate every unknown with alien activity. But some could turn out to be quite another kettle of fish.

There is nothing impossible, indeed improbable about (technological) extraterrestrial intelligences visiting our cosmic neck of the woods. When given the sheer number of potential nurturing abodes where life's origin and development are likely; the evolutionary accent on ever increasing biological complexity over time up through and including the development of intelligence; the biological capacity for exponential growth which can have a carryover effect in terms of technological growth; the abundance of available natural mineral and energy resources in the universe; the physics that allow interstellar travel; and the eons of time available for all of the above to come to pass, the argument is quite the opposite. It is indeed improbable that we (meaning our solar system) haven't been visited at least once over the duration that Earth has had a biosphere.

It's then but a short step in logic from postulating a visit to considering the possibility that there has been the establishment of an alien colony in our solar system (at one extreme), to those aliens at least leaving behind a calling card (at the other extreme), whether on purpose or by accident. The environs of Saturn are as good a place as any to do this in our solar system. Some would suggest a better location than most given that (to our eyes anyway) Saturn is the jewel of that system.

So, is there an extraterrestrial artifact and/or colony in the vicinity of Saturn? We're too far away on Earth to get a handle on this question, but our eyes and ears went with Pioneer and Voyager - where no man has gone before. What did they find? Let's start with the moons of Saturn; specifically Mimas.

The peculiarities of the satellites of Saturn cause more headaches (to planetary astronomers) per square moon than just about anything else going this side of the current position of Voyager 2 (now on route to encounters with Uranus and Neptune and no doubt more unknown mysteries)$_{21-25}$.

For example, Saturn has an orbiting satellite with a trailing half fully six times brighter than the opposite hemisphere which faces forward in its orbit - Iapetus. The moon Enceladus is also strange in that roughly half of its surface is curiously smooth while the rest is chock-a-block with unusual cracks, "ropy" features, craters and other markings. Yet another satellite, Dione, shows a striking albedo asymmetry. Why?

Speaking of Dione, she shares the same orbit with a sister satellite termed Dione B. One normally thinks of one satellite per available orbit in the natural course of events. Yet, there are other pairs of co-orbital Saturnian moons, one, yet unnamed but known as S-10 and S-11, existing much closer to the planet than Dione/Dione B. Further, Tethys is sharing its orbit with not one but two librating companions.

Which brings me to Mimas - for my money the most enigmatic object in the Saturnian system, if not the solar system. Mimas also appears to have at least one other small object (satellite) in the vicinity of (sharing) its orbit. Some evidence suggests that Mimas may have a pair of companions*. Now that might be okay if Mimas were a large and dense satellite which could capture and control tiny moons - but it's not. Not even our own Luna, a giant and massive heavyweight in comparison, apparently has any neighbours$_{4,8}$.

But before I get in too deep with this analysis, let's set out some of the basic parameters of Mimas.

Mimas, with a diameter of just over 390 kilometres was just about the smallest and innermost of Saturn's classically established nine satellites (those visible from Earth). That diameter would only stretch some 60% of the "as the crow flies" distance between Canberra and Sydney, so it's not exactly huge by celestial standards.

It orbits Saturn, in a near perfect equatorial circle, every 22.6 hours, at a distance of 3.08 Saturnian radii (which translates at around 186,000 kilometres from Saturn's centre).

With a surface albedo of 0.7, and a mean density of about 1.3 grams per cubic centimetre, it would not be unreasonable to conclude that Mimas is composed to a significant degree of ice - ice mixed in with high density rock rubble. Now at the temperatures expected at that distance from the sun (less than 100°K), ice or

* Eberhart, J. - "Saturn: Myriad moons and more" - Science News, 30 Jan. 1982 p.70.

ice/rock conglomerates would be as strong, but as brittle, as pure rock. Keep that in mind.

So far, "so what?". Hang about a second, I'm getting to the more interesting bits! Now upon a visual inspection of Voyager pictures of Mimas, the immediate striking feature (to even the most casual of viewers) is that the leading hemisphere contains an impact crater 130 kilometres in diameter - fully one third the diameter of the tiny moon itself. This is a "dent" - actually a crater diameter to parent body diameter ratio - without parallel in the known solar system. The crater's floor is as much as 10 kilometres deep, and a large central mountain rises to a height of some 6 kilometres above the crater floor. So, all in all, it is quite a visible scar on the Mimas landscape.

Curiously, then comes a gap in crater size distribution. The next largest craters have diameters of only a few tens of kilometres. Thus, Arthur - the supercrater has been tentatively named for the legendary English King Arthur - is quite the odd one out. As one would expect, given the size of Mimas, there is little if any suggestion - outward signs - of indigenous weathering or internal geologic resurfacing activity.

Keeping the above in mind, it was a passage about the first impression appearance of Mimas to a member of the Voyager Imaging Science Team (Bradford A. Smith) that first grabbed my interest as if hit by a two-by-four. I quote it in full.

> *"Mimas seems to be more normal - except for the giant impact crater that is more than a third the diameter of Mimas itself. As the image of Mimas and this absurd crater first appeared on our television monitors, there was a sense of deja vu. Of course! It was George Lucas' Death Star. The resemblance...is uncanny. Aside from its strange appearance, the very size of the crater seemed improbable. It is difficult to understand how Mimas could have received such an impact and survived."*[11]

This is because of the abovementioned fact that even pure ice would be brittle in the extreme, and couldn't be expected to take such a blow (by a calculated 10 kilometre object) and survive without shattering.

This passage prompted me to ponder that if Mimas were not a natural moon, but some sort of interstellar space colony/ark ship (it wouldn't really be a Death Star in the Star Wars sense) then the size would not be outrageous for the purpose for an advanced ETI (with a circumference of only 1225 kilometres you could fly right around it in only 2 to 3 hours). The low density could equally be interpreted as a hollow metal sphere covered with ice/rock rubble as increased protection from radiation, solid debris, and questionning terrestrial eyes - the perfect camouflage. The large dent - Arthur - would be a now covered-up exit for (now no longer needed) engine exhaust. Should the crater really have been due to a natural impact, then perhaps an artificially constructed and re-inforced metal shell would have withstood the impact better. The tiny objects associated with Mimas could of course be... But here I'll let your own imagination take over!

The above passage "Mimas seems to be more normal" is a reflection on yet another facet which shows up how unique Mimas could be considered - depending on just what is actually normal in that region of interplanetary space.

Relationships among mass, composition, orbital position, and evolution must logically exist in the Saturnian satellite system, but to date these relationships remain obscure. In, for example, the case of Mimas and Enceladus, you have two satellites which have very similar sizes, densities, and orbital placings, but very

different albedoes (Enceladus is a dazzling .9 to 1.0 - more reflective than pure snow) and degrees of internal geologic activity. Enceladus has a diameter of roughly 500 kilometres; a density of 1.2 grams/cubic cm; and is the second innermost of the terrestrially known nine satellites of Saturn.

Recall that Mimas appears geologically dead - now as in her past - with only a very few indications of internal activity hinted at. (Even those are explainable by invoking after-effects from the formation of Arthur - clearly an external event.) But, the widest variation of terrains and crater numbers occurs on Enceladus, which indicates that this moon has had the most prolonged active and internal geologic period of any of the Saturnian satellites. Yet, Enceladus is for all practical purposes the apparent before-the-fact twin (in terms of size, density and distance) of Mimas! What is wrong here? Which satellite is out of step? At first glance one would intuitively answer Enceladus. But it is Enceladus that at least has company.

That Enceladus is not totally abnormal is suggested by the fact that a few other of Saturn's icy satellites also show signs of some past (if not current) internal "heat engine" evolution - specifically Tethys and Iapetus, but also Rhea and Dione - even if to a far lesser degree than with Enceladus herself. Rhea, Tethys and Dione form a close trio (in size, density, formations and distance from the primary - Iapetus does not match only in terms of distance as it's in Saturn's outback. Otherwise it's akin to the other three). Thus, these moons can be thought of as being statistically typical (though these satellites too have their differences). Enceladus is at an extreme (being highly evolved), yet closer to the above trio (and Iapetus) than to unevolved Mimas, the object it should mirror.

That other satellites such as Mimas show crater size and density abnormalities does not of necessity translate into internal processes being responsible. External ones also can resurface terrain which results in a non-uniform surface. These processes however could never produce either a smooth surface, or some of the surface formations, visible on parts of Enceladus.

To repeat the point: if Mimas and Enceladus form a pair such that scientists had expected them to be the pod's peas (and they couldn't have been more wrong), then either Mimas is a natural oddball, or Enceladus et.al. are natural oddballs, or else Mimas is artificial and Enceladus et.al. are following a normal evolutionary course for icy satellites.

Now that the Pioneer and Voyager missions to Saturn have come and gone, Mimas is no longer among the smallest nor is it the innermost of the moons of Saturn. At the far end of the size spectrum lies Titan, the largest of Saturn's moons. At the other end - small bits of rubble, including the rings. With the exception of the outermost satellite, Phoebe, all of the smaller moons (moonlets might be a better term) lack a gravitational field sufficient to pull them into a spherical shape, and thus show irregular profiles. Though I'm not sure what an extraterrestrial spaceship would look like, somehow these irregular moonlets don't pass muster or meet expectations and can be dropped from further consideration. Now one wouldn't expect these moonlets to show any signs of internal evolution, and, like Mimas, they don't. But then Mimas does have the required size (if natural) to at least evolve into a spherical shape - but that's where internal evolution ceased.

In summary, Mimas is now clearly quite unique in being a supposedly typical icy, small, regularly shaped, inner orbital but unevolved satellite. But then you wouldn't expect even a camouflaged starship to show that sort of face. Throw in her "Death Star" appearance (not that that really carries much weight), her supposedly

natural mini companions, Arthur's unexplainable presence, etc. and you have one big Saturnian puzzlement - out of all proportion for an object Mimas's size!

The final (but by no means least - far from it) mystery I'll address is the Saturn Electrostatic Discharge or SED_{26-35}. To those on the Voyager Planetary Radio Astronomy (PRA) team, one of the biggest surprise discoveries was the detection of an extremely impulsive (15 to 400 millisecond) and very broadband (20 kilohertz to 40 megahertz) radio emission being broadcast from something, somehow, somewhere in the vicinity of Saturn!

In contrast to Saturn Kilometric Radiation (SKR) which was reminiscent of Jovian radio emissions (parallels were to be expected between the two gas giants in this area), this new type of broadcast, the SED, had no parallels with electrostatic phenomena produced in the plasma environments of Jupiter and Earth (planets with known strong magnetic fields). This fact, plus other checks, led the principal PRA investigators to conclude that the source of SED was external to the Voyager craft (which had operated in both the environs of Earth and Jupiter)$_{34}$. The craft was functioning normally.

The investigators found that these unexpected SEDs (over 10,000 were detected by Voyager 1) tended to peak with a rough 10-hour, 10-minute (± 5 minute) periodicity. Their occurrence was inversely correlated with the distance from Saturn of Voyager. These facts both suggested that the source was near the planet.

Now a periodicity of 10h 10m is correlated with the Saturnian system in one of two ways. It is loosely equal to the rotation rate of parts of the equatorial region of Saturn's atmosphere, thus suggesting storm activity and lightning of the kind we are familiar with on Earth (Venus and Jupiter are two other known planets that experience atmospheric lightning). It also matches the orbital rate of a part of Saturn's ring system - at $1.81R_s$ (Saturn radii) in fact which puts it smack in the middle of the B ring.

And what is unique about Saturn relative to Venus, Earth and Jupiter? Of course! What's distinctive about Saturn is her extensive and well developed ring system. (Yes I know Jupiter has a ring too, but in comparison it would be like equating a paper airplane with the Concorde!) Thus, attention quickly focussed in on the B ring.

There was another reason for rejecting an atmospheric source. If the SEDs originated in Saturn's cloud deck, then there would be an ionosphere between the source and Voyager which would have at worst blocked out, or at best altered, the radio frequencies emitted by electrostatic discharges. No blockage (obviously) or alteration or interference with the signature was noted. However, debate for such an atmospheric source has not yet been stifled$_{26,27,32,33}$. In fact to be honest, and preempt later discussion, no fully natural explanation is without criticism.

If the B ring answered the <u>where</u>, then <u>how</u> didn't fall into place as neatly. Lots of buzz phrases were thrown around like "dielectric motions", and "corotating magnetic fields"$_{34}$. Those same authors conclude their paper however with "It remains a mystery to us...". However, the basic idea seemed to be that electrostatic phenomena (i.e. lightning) could be generated in the rings. But, the environment was also very obviously one outside our normal experience, such that ring lightning couldn't amount to much more than an educated guess. Clearly the principal investigators (and others) would be keyed up for the Voyager 2 fly-by in order to get more data and test hypotheses which had now firmed between a planet-based and a ring-based source.

There was one nasty point which played havoc with either location. Why

would it happen in just a single spot - if natural (and by implication common)? It was as if a searchlight beacon were fixed at one point on the Earth's surface, being turned on and off as the planet rotated around a fixed axis. But searchlights tend to be artificial! And the term did not originate with me either in this context[35].

Although Voyager 2 in fact confirmed the SED phenomena, and although their intensity hadn't altered greatly, there were some significant differences in terms of relative degree of polarization, episode distribution and the number of events[35]. Thus, the source, whatever it was, could change over time. The extra data, and the extra dimensions of the SED, did nothing however to alter the opinions of the principal PRA team that the source was at $1.81R_s$ with a 10h 10m repetition period. They also pointed out that this period was far removed from the average Saturnian rotation period of 10h 40m. (It, the rotation, varies from place to place because Saturn isn't a solid object - at least not where the rotation is measured from.)[35]

But things quickly got in true Alice fashion "curiouser and curiouser". The Voyager 2 photopolarimeter (PPS) occultation experiment produced data that revealed a unique single gap, roughly 150 metres wide, planted in Saturn's B ring, at - you guessed it - as close to $1.81R_s$ as makes no odds! Scientists stated the obvious:

> *"...concerning the uniqueness of the SED source, we believe that it is highly likely that there is a single cause of both SED and the PPS occultation gap observations."*[30]

Now clearly <u>something</u> (object) had to clear out this particle gap pathway around the B ring <u>and</u> produce the SED.

> *"...Voyager PRA and PPS data indicate the presence of a single, unique object in the B ring at a distance of (about) 108,942km from the centre of Saturn. This object exerts an influence on material adjacent to its orbit, resulting in the formation of a 150m gap along that orbit. In addition, Voyager imaging data suggest that the object may influence micrometre-sized dust hundreds of kilometres away. The interaction between this object and its environment seems to be the source of SED."*[30]

The coincidence between the SED periodicity and the PPS gap seems (to me anyway) to settle the question of <u>where</u> the SEDs originate from. It gives little away in terms of <u>how</u> it occurs, or <u>what</u> the object is. It could be a moonlet or perhaps a moon in the making. If the former, Voyager failed to photograph it, or we've thus far failed to pick it out, or it was below the camera's resolution (more likely than not). If the latter, then Voyager's timing was so remarkable as to make one more than slightly suspicious. Another mooted possibility was that here was evidence of a mini, primordial black hole - but they seem to be the catch-all which explains anything unusual yet which requires a natural explanation (Tunguska, galactic nuclear activity, the hidden mass of the universe, etc. cases on tap). The black hole explanation is (to me) an attempt to clutch at a natural straw. In fact, any natural object, dissipating the sort of energy detected by Voyager from the SED source, would also have dissipated itself in fairly quick-smart fashion.[31] The odds against a Voyager encounter therefore would be, in terms of their relative lifespans, astronomical.

The bottom line is that either we have a very rare, even unique, natural process at work here (which is close to being a contradiction in terms), despite all the associated problems (like where does the energy come from; how could such an object exist over astronomical periods; why were there changes between the flybys of Voyager 1 and Voyager 2, etc.), or, we are seeing evidence of technology -

with all that that implies as Voyager itself, the only known technological object in the area at that time, wasn't the source.

"Technology? Oh come on now Prytz, you've been reading too much sci-fi - Arthur C. Clarke's imagination has driven you 'round the twist'."

One popular author has worked out in far greater detail than I can afford here a quite believable scenario of what could have happened out there at Saturn if terrestrial technology did in fact encounter extraterrestrial technology[31]. Interested readers can check it out for themselves. The fact is that the scenario explains the data in a rational and credible way. It is impossible to dismiss lightly.

Scientifically at least the state of play can be best summed up by the single symbol "?". Even scientists are leaving their options open with respect to the ETI artifact hypothesis, even if they employ a turn of phrase so as to say so without really saying so. Consider the conclusion of this fairly recent post Voyager 2 paper on SED:

> *"No single (natural) model has yet been advanced which accounts for all the observed properties of SED. That they are the radio manifestation of lightning-like discharges occurring in the atmosphere of Saturn is perhaps the simplest explanation, but in order for it to become an acceptable mechanism, a valid explanation of how 20 kHz emission escapes through the ionosphere has to be advanced.*
>
> *...The more exotic concept of some type of orbiting 'black* box' which produces SED by some as yet undefined process certainly cannot be ruled out by the known facts. There are indications that some strange features may occur in the B ring at a position consistent with that implied by the PRA SED data. Again, a detailed study of the theoretical consequences of having a body which is in some way unique, or at least very rare, embedded within the densest part of the B ring would be of immeasurable help in attempting to solve the problem of the source of SED."*[29]

Even a non-technological solution is going to be of extraordinary interest!

So, we see that Saturn has been heaped with anomaly upon anomaly - and I've only mentioned a few of them! Perhaps in the field of interplanetary exploration that should have been as expected and certain as your proverbial "death and taxes". Never-the-less, Saturn is one hell of a mysterious place. Perhaps by the actual year 2001 we will know for sure if some of those mysteries were, in part or in whole, due to the presence of an ETI - perhaps the same ETI that has been for so long now associated with our terrestrial mystery, the UFO.

* How appropriate a phrase when recalling the 2001 monoliths!

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ALIEN INTELLIGENCE

reviewed by Cassandra Sowiak-Rudej.

Alien Intelligence, by Stuart Holroyd, published by Reed, Sydney 1979.

In this book, Stuart Holroyd has presented a thorough and thought-provoking analysis of the existence and possible existence of alien intelligence. In his own words: "Let us ask: 'alien to what?' And let us say: 'to physical, human persons of the planet Earth'. This definition implies that there may be 'persons' that are: (a) not human: (b) not physical: or (c) not terrestrial (p.15)".

The first part of the book deals with possible non-human, but physical and terrestrial intelligence, in the form of mammals (dolphins and chimpanzees), computers, and elementals or etheric beings. The description of attempts to contact dolphins in a meaningful way has obvious parallels to the question of first contact with extraterrestrials often discussed in the context of ufology. His stated conclusion that dolphins are intelligent is nothing new, although still startling to some people. Of more impact, perhaps, to readers unacquainted with developments in this field, would be the descriptions of conversations with chimpanzees, and the discovery of their ability to use and create new signs for Ameslan, the sign language of deaf people. The book strongly conveys the sense of excitement in this research, including the reaction of a reporter, Boyce Rensberger, brought up using Ameslan because of deaf parents, who worked with Washoe, a chimpanzee, and was overwhelmed by the sudden realization that he was "conversing with a member of another species in his native tongue (p.28)".

The problem of meaning and intelligence in computers is thoroughly dealt with, the main problem being identified as our tendency to anthropomorphism, again a topic of relevance to ufology and the search for extraterrestrials, particularly our insistence that UFOs cannot exist unless they 'make sense' to us, and conform to our rational ideals.

Holroyd then deals with the whole gamut of etheric, psychic and spiritual persons, so hard for us to accept and yet seemingly so persistent. His research is extensive, and his argument directed to the possibility that mind exists independent of matter is coherent and logical. After detailed discussion of near-death experiences, and communication with the dead, he concludes that "Many of us will have at least residual doubts about the survival question until the day comes when we find out the truth of the matter for ourselves, but the cross-correspondences literature and the Williams scripts certainly constitute strong evidence for the existence of discarnate mind" (p.147).

In the final part of the work, the author covers the possibility of life as we know it elsewhere, the Sirius mystery, the UFO phenomenon, and the nature of God. Once again, the research is commendable, with little known facts and the best evidence presented. The reference list for the chapter on UFOs includes books by Charles Bowen, Hynek, Fuller, Jacobs, Keyhoe, Klass, Sagan, Sanderson and Vallee, and the material covers the Betty and Barney Hill abduction, the Socorro landing and the Coyne case. Holroyd rejects outright uncorroborated reports, such as the Pascagoula, Mississippi abduction, but also condemns the Condon Report as unscientific and biased. Discussing Vallee's psychic solution, he concludes that the idea that human consciousness is being manipulated is the only explanation capable of accounting for all the facts, "including the most puzzling

one, that a putative higher intelligence should sometimes behave like a mischievous prankster" (p.204).

Examining this further, Holroyd suggests that the Universe is in fact an inteligent organism, to which we relate just as an individual cell in our body relates to us, capable of functioning in harmony for the higher good of the entire organism, or destructively, thereby prompting direct intervention by the controlling intelligence, in the universal case, that which we know as God.

This is, of course, only a suggestion. The final conclusions of the book state that other intelligences exist, in forms both higher and lower than man, and that we should acknowledge and try to comprehend their existence; that there exist alternate realities that interact with our normal, physical environment, and that our survival may depend on our acceptance of these dimensions.

Personally, I found it refreshing to read a book where the author had the courage to make some really definite conclusions, and I would recommend it even to those who would not agree with the final analysis. On the strength of previous knowledge of work with dolphins and chimpanzees, and of the UFO phenomenon, I assessed the book as sound and scientific, and was therefore obliged to give serious consideration to the section on psychic and spiritual matters, about which I knew considerably less. In the light of the current trend to seek connections between these so-far distinct branches of the unexplained, I regard Stuart Holroyd's viewpoint as a valuable contribution to the debate.

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UFOCON 8

Australian UFO Conference Number 8 is to be held in Sydney, from Saturday 9th June to Monday 11th June, 1984. The venue has yet to be selected. Persons interested in attending should contact ACUFOS (at the address of this Journal), if they are not already on the ACUFOS mailing list, so that information can be forwarded as it becomes available.

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NOTICE TO CONTRIBUTORS

It should be apparent to Journal readers that the editorial typing equipment has been upgraded. Contributors are therefore advised that it is no longer so desirable that their manuscripts should be submitted already typed ready for photocopying. Handwritten papers are quite acceptable, if legible. In particular, more papers from more contributors would be greatly appreciated.

ACUFOS Bibliography Service: Ball Lightning: Part 3 (by) John Prytz

Compiler's Note: See the ACUFOS Journal, Nov./Dec. 1983.

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